

We claim:

1. An electronic component, comprising:

a semiconductor chip including a semiconductor material, said semiconductor chip having an active upper side, a passive rear side, and a sawn edge;

said sawn edge being formed of said semiconductor material and surrounding said semiconductor chip, said sawn edge having profile-sawn contours; and

a plastics composition forming a plastic edge, said plastic edge surrounding said sawn edge and being in a form-locking engagement with said profile-sawn contours.

2. The electronic component according to claim 1, wherein said plastic edge has a rectangular cross section which is extended, toward said active upper side of said semiconductor chip, by a triangular area tapering to a point.

3. The electronic component according to claim 1, wherein said plastic edge has a rectangular cross section with an additional rectangular area widening said rectangular cross section toward said active upper side of said semiconductor chip.

4. The electronic component according to claim 1, wherein said plastic edge has a cross section formed with a notch at said active upper side.

5. The electronic component according to claim 1, wherein:

said plastic edge has a U-shaped cross section with a relatively shorter leg and a relatively longer leg; and

said active upper side of said semiconductor chip has an edge region with a groove formed therein, said relatively shorter leg engages in said groove, and said relatively longer leg forms an outer edge of said plastic edge.

6. The electronic component according to claim 1, including an adhesion-promoting layer provided between said sawn edge and said plastics composition.

7. The electronic component according to claim 6, wherein said adhesion-promoting layer includes at least one element selected from the group consisting of a zinc oxide and a chromium oxide.

8. The electronic component according to claim 6, wherein said adhesion-promoting layer has a dendritic structure.

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9. The electronic component according to claim 1, wherein said active upper side of said semiconductor chip includes an integrated circuit.

10. The electronic component according to claim 1, wherein said active upper side of said semiconductor chip includes a contact sensor.

11. The electronic component according to claim 1, wherein said active upper side of said semiconductor chip has an edge region having a bonding channel formed therein with contact areas provided in said bonding channel.

12. The electronic component according to claim 1, wherein said active upper side of said semiconductor chip has a central bonding channel formed therein with contact areas provided in said central bonding channel.

13. The electronic component according to claim 1, including:

a wiring film disposed on said active upper side, said wiring film having conductor tracks and external contacts; and

said semiconductor chip having contact areas connected, via said conductor tracks, to said external contacts.

14. The electronic component according to claim 1, wherein said plastic edge has a rectangular cross section which is extended, toward said passive rear side of said semiconductor chip, by a triangular area tapering to a point.

15. The electronic component according to claim 1, wherein said plastic edge has a rectangular cross section with an additional rectangular area widening said rectangular cross section toward said passive rear side of said semiconductor chip.

16. The electronic component according to claim 1, wherein said plastic edge has a cross section formed with a notch at said passive rear side.

17. The electronic component according to claim 1, wherein:

said plastic edge has a U-shaped cross section with a relatively shorter leg and a relatively longer leg; and

said passive rear side of said semiconductor chip has an edge region with a groove formed therein, said relatively shorter leg engages in said groove, and said relatively longer leg forms an outer edge of said plastic edge.

18. A method of producing an electronic component, the method which comprises:

providing a semiconductor wafer with semiconductor chips disposed in rows and columns and with sawing track regions provided therebetween;

disposing the semiconductor wafer on a carrier;

sawing, with a profile saw, the semiconductor wafer along the sawing track regions;

filling profile sawing tracks with a plastics composition; and

separating the semiconductor wafer into semiconductor chips along the plastics composition by using saw blades of a thickness smaller than a sawing track width in the semiconductor wafer filled with the plastics composition for providing a semiconductor chip having an active upper side and a passive rear side such that the semiconductor chip is surrounded by a sawn edge of a semiconductor material, the sawn edge having profile-sawn contours, and such that the sawn edge is surrounded by the plastics composition forming an edge of plastic, and such that the plastics composition is in a form-locking engagement with the profile-sawn contours.

19. The method according to claim 18, which comprises introducing the plastics composition into the profile sawing tracks by using a troweling technique.
20. The method according to claim 18, which comprises introducing the plastics composition into the profile sawing tracks by using an immersion technique.
21. The method according to claim 18, which comprises introducing the plastics composition into the profile sawing tracks by using a pressing technique.
22. The method according to claim 18, which comprises introducing the plastics composition into the profile sawing tracks by using a spraying technique.
23. The method according to claim 18, which comprises, prior to separating the semiconductor wafer into semiconductor chips having an edge of plastic, covering the semiconductor wafer with a wiring film and carrying out a wiring operation such that contact areas on the active upper side of the semiconductor chip are connected to external contacts via wiring lines.
24. The method according to claim 23, which comprises applying solder bumps to the wiring film as external contacts.

25. The method according to claim 18, which comprises providing contact areas in a bonding channel on the active upper side of the semiconductor chip.

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